

WHAT IS CLAIMED IS:

1. A method for preparing a multimedia presentation for transmission to a client over a network, the method comprising:

allowing a producer of the presentation to identify elements of software which

5 process data representing resources used in the presentation;

allowing the producer to specify connections between two or more elements, wherein a connection represents a flow of data from one element to another element;

allowing the producer to specify a plurality of resources to be processed by the identified elements and location data indicating the locations of the resources on one or more
10 servers connectable to the network; and

generating a set of presentation data structures, including the identified elements, connections, and resources, for transmission to a client to thereby enable the client to reproduce the multimedia presentation from the presentation data structures by retrieving at least some of the resources and processing the retrieved resources with the identified elements in accordance
15 with the specified connections.

2. The method of claim 1, wherein generating the set of presentation data structures comprises generating a show graph representing a plurality of identified elements and the connections extending therebetween.

3. The method of claim 1, wherein generating the set of presentation data
20 structures comprises generating a table listing all or some of the specified resources and corresponding locations.

4. The method of claim 1, comprising allowing the producer to replace a first identified element with a second element while retaining for the second element any connection and resources associated with the first element.

5. The method of claim 1, comprising allowing the producer to specify an encoder to tap a signal on a selected connection and encode the data flowing at the selected connection.

6. The method of claim 5, wherein allowing the producer to specify the encoder comprises allowing the producer to associate the specified encoder with a given set of client processing capabilities or available bandwidth for transmission to a client.

10 7. The method of claim 6, comprising:
receiving data indicating the processing capabilities of a client requesting the presentation or available bandwidth for transmission of the presentation to the client; and
traversing a series of identified elements via their connections until a tapped encoder is located being associated with the client's processing capabilities or available
15 bandwidth.

8. The method of claim 7, comprising encoding the data at the tapped connection using the specified encoder.

9. The method of claim 8, comprising transmitting the encoded data to the requesting client.

20 10. The method of claim 9, comprising the client:
receiving the presentation data structures;

traversing the series of identified elements via their connections until a tapped encoder is located being associated with the client's processing capabilities, available bandwidth, or both; and

5 decoding the data at the tapped connection using a decoder corresponding to the specified encoder.

11. A system for delivering a multimedia presentation from a server to a client, the system comprising:

a presentation-authoring tool for use by a producer of the presentation to

10 identify software elements for processing data representing resources used in the presentation,

specify connections between two or more elements representing a flow of data from one element to another element,

specify a plurality of resources to be processed by the identified elements and location data indicating the locations of the resources on one or more servers connectable to
15 the network, and

specify an encoder to tap a signal on a selected connection and encode the data flowing at the selected connection;

and

a first agent for traversing a series of identified elements via their connections
20 until a tapped encoder is located and encoding the data at the tapped connection using the specified encoder.

12. The system of claim 11, wherein the authoring tool allows the producer to associate a specified encoder with a given set of client processing capabilities or available bandwidth for transmission to a client.

13. The system of claim 12, comprising a plurality of first agents, each associated
5 with a different set of client processing capabilities or available bandwidth.

14. The system of claim 13, comprising means for receiving data indicating the processing capabilities or available bandwidth for a client requesting the presentation and selecting one of the first agents associated with the indicated capabilities or bandwidth for traversing the series of identified elements.

10 15. The system of claim 11, comprising a second agent for traversing a series of identified elements via their connections until a tapped decoder is located and decoding the data at the tapped connection using the specified decoder.

16. A method for customizing a multimedia presentation based upon processing capabilities of a client requesting the presentation or available bandwidth for transmission to the
15 client, the method comprising:

storing data structures identifying a series of software elements for processing a resource representing data, forming part of the presentation and connections between the software elements in the series on which resource data flows from one element to another;

specifying a plurality of encoders to tap various connections within the series of
20 software elements, the encoders each being associated with a given set of client processing capabilities, available bandwidth for transmission to a client, or both; and

[illegible]